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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/586,230	07/18/2006	Ronggao Li	38701-005US1	2958

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OCCHIUTI ROHLICEK & TSAO, LLP
10 FAWCETT STREET
CAMBRIDGE, MA 02138

EXAMINER

ADDY, ANTHONY S

ART UNIT	PAPER NUMBER
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2617

NOTIFICATION DATE	DELIVERY MODE
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06/01/2009

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

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Office Action Summary	Application No. 10/586,230	Applicant(s) LI, RONGGAO	
	Examiner ANTHONY S. ADDY	Art Unit 2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 March 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This action is in response to applicant's amendment filed on March 12, 2009.

Claims 1-8 are now pending in the present application.

Response to Arguments

2. Applicant's arguments with respect to **claims 1-8** have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

4. Claims 1, 6 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Cohen et al., U.S. Patent Number 7,299,349 (hereinafter Cohen)** and **Aitken et al., U.S. Patent Number 6,947,743 (hereinafter Aitken)**.

Regarding claim 1, Cohen teaches a method for implementing a Push service, comprising the following steps: a Push Initiator (601) sending a Push message to a Short Message Service Center (609) through a Push Proxy Gateway (PPG) (604) (see col. 8, lines 47-52, col. 10, lines 24-29 and Fig. 6); and delivering the push message to a mobile station (*e.g.*, *wireless device* 603) (see col. 10, lines 16-21 and Fig. 6).

Cohen fails to explicitly teach the Short Message Service Center segmenting the Push message to obtain a group of short messages, and scheduling the group of short messages in a transaction mode and delivering them to a mobile station; after receiving

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the group of short messages, the mobile station recombining them into an integral message.

In an analogous field of endeavor, Aitken teaches a method of transferring short messages between non-compatible networks, wherein a short message gateway comprises a gateway function (SMGF) for segmentation of messages if a network has a shorter maximum message length than another network (*i.e., reads on the claimed limitations of the Short Message Service Center segmenting the Push message*) (see col. 2, lines 5-9 & 52-54). For example, Aitken teaches in order to facilitate the delivery of short messages of length greater than 128 octets from an IMT-2000 SMSC to a subscriber in a PDC network, the short message is segmented into lengths of 128 octets or shorter and delivered as **two separate short messages** (*i.e., reads on the claimed limitations of segmenting the Push message to **obtain a group of short messages**, and these **two short messages will then be re-assembled on the PDC handset** (*i.e., reads on the claimed limitations of scheduling the group of short messages in a transaction mode and delivering them to a mobile station; after receiving the group of short messages, the **mobile station recombining them into an integral message***) (see col. 5, lines 13-30).*

It would therefore have been obvious to one of ordinary skill in the art at the time of the invention to modify Cohen with the teachings of Aitken to include a method of the Short Message Service Center segmenting the Push message to obtain a group of short messages, and scheduling the group of short messages in a transaction mode and delivering them to a mobile station; after receiving the group of short messages, the

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mobile station recombining them into an integral message, in order to convert short messages to an appropriate message length format before transmission to ensure message delivery to subscriber handsets with short message length limitations as taught by Aitken (see col. 2, lines 5-9 & 52-54 and col. 5, lines 13-21).

Regarding claim 6, Cohen in view of Aitken teaches all the limitations of claim 1. Cohen in view of Aitken further teaches a method, wherein said Short Message Service Center (609) is specially used to bear a Push service (see *Cohen*, col. 10, lines 24-29 and Fig. 6).

Regarding claim 7, Cohen in view of Aitken teaches all the limitations of claim 6. Cohen in view of Aitken further teaches a method, wherein said SMSC (609) is arranged separately or integrated in a WAP Gateway (see *Cohen*, col. 10, lines 24-29 and Fig. 6).

5. Claims 2, 3 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Cohen et al., U.S. Patent Number 7,299,349 (hereinafter Cohen)** and **Aitken et al., U.S. Patent Number 6,947,743 (hereinafter Aitken)** as applied to claim 1 above, and further in view of **Boyle et al., U.S. Patent Number 6,138,158 (hereinafter Boyle)**.

Regarding claim 2, Cohen in view of Aitken teaches all the limitations of claim 1. Cohen in view of Aitken fails to explicitly teach a method, wherein said transaction mode refers to continuously sending in a predetermined time a group of short messages obtained by segmenting, and resending one or more one of the messages when they are sent unsuccessfully.

In an analogous field of endeavor, Boyle teaches a method for implementing a push service, wherein an encoded PUSH PDU is segmented into pieces of message fragments, and the message fragments are successively and individually sent to a client device (*i.e., reads on the claimed limitations of “wherein said transaction mode refers to continuously sending in a predetermined time a group of short messages obtained by segmenting”*) (see col. 16, lines 3-8 and Fig. 8C; steps 743 & 751). According to Boyle, if no acknowledgment for any of the message fragments is received, then the message system resends the message fragment until an acknowledgement is received (see col. 16, lines 8-11 and Fig. 8C; step 767) (*i.e., reads on the claimed limitations of “resending one or more one of the messages when they are sent unsuccessfully”*).

It would therefore have been obvious to one of ordinary skill in the art at the time of the invention to modify Cohen and Aitken with the teachings of Boyle to include a method, wherein said transaction mode refers to continuously sending in a predetermined time a group of short messages obtained by segmenting, and resending one or more one of the messages when they are sent unsuccessfully, in order to ensure that messages with length limitations are delivered to a client device successfully as taught by Boyle (see col. 15, line 64 through col. 16, line 21).

Regarding claim 3, the combination of Cohen, Aitken and Boyle teaches all the limitations of claim 2. The combination of Cohen, Aitken and Boyle further teaches a method, wherein if all the short messages of the group obtained by segmenting are sent successfully in a predetermined time, the Short Message Service Center returns an

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Acknowledgement Message to the PPG, and the PPG sends a Result Notify Message to the Push Initiator according to the Acknowledgement Message (*i.e., reads on the teachings of Boyle that the messenger in the link server receives a confirmation message from the message system, such as an SMSC, and the confirmation message is kept in the messenger for future reference*) (see Boyle, col. 15, line 39, col. 16, lines 14-21 and Fig. 4).

Regarding claim 4, the combination of Cohen, Aitken and Boyle teaches all the limitations of claim 2. The combination of Cohen, Aitken and Boyle further teaches a method, wherein if any one of the short messages of the group obtained by segmenting is sent unsuccessfully in a predetermined time, the Short Message Service Center returns a Submission Failure Message to the PPG, and the PPG sends a Result Notify Message to the Push Initiator according to the Submission Failure Message (*i.e., reads on the teachings of Boyle that the messenger in the link server receives a confirmation message from the message system, such as an SMSC, and if the confirmation indicates that the encoded PUSH PDU is not successfully delivered to the client device, the corresponding notification is queued into the queue list for another*) (see Boyle, col. 15, line 39, col. 16, lines 14-21 and Fig. 4).

6. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Cohen et al., U.S. Patent Number 7,299,349 (hereinafter Cohen)** and **Aitken et al., U.S. Patent Number 6,947,743 (hereinafter Aitken)** as applied to claim 1 above, and further in view of **Vance, Jr. et al., U.S. Patent Number 7,043,264 (hereinafter Vance)**.

Regarding claim 5, Cohen in view of Aitken teaches all the limitations of claim 1. Cohen in view of Aitken fails to explicitly teach a method, wherein after sending the Push message to the Short Message Service Center, the PPG suspends the present transaction to wait for the processing result thereof from the Short Message Service Center and continues to process the next transaction.

In an analogous field of endeavor, Vance teaches a messaging server sends an SMS message through a Short Message Service Center (SMSC) to a client device, and if a response is not received, the messaging server lets the SMSC handle sending the message to the client and passively wait for a response (see col. 5, line 67 through col. 6, line 5). According to Vance, since SMS is a store and forward system the SMSC ensures the timely delivery of messages to the client, and the SMSC has the ability to detect that the client is not available and will deliver any waiting messages when the client becomes available (see col. 6, lines 6-13), thus one of ordinary skill in the art recognizes it would have been obvious for the PPG to suspend a current transaction and continue to process the next transaction till an acknowledgement is received from an SMSC to efficiently utilize network bandwidth resources.

It would therefore have been obvious to one of ordinary skill in the art at the time of the invention to modify Cohen and Aitken with the teachings of Vance to include a method, wherein after sending the Push message to the Short Message Service Center, the PPG suspends the present transaction to wait for the processing result thereof from the Short Message Service Center and continues to process the next transaction, in

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order to efficiently utilize network bandwidth resources and to reliably deliver messages to a client in as close to real time as taught by Vance (see col. 6, lines 3-13 & 43-48).

7. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Cohen et al., U.S. Patent Number 7,299,349 (hereinafter Cohen)** and **Aitken et al., U.S. Patent Number 6,947,743 (hereinafter Aitken)** and **Boyle et al., U.S. Patent Number 6,138,158 (hereinafter Boyle)** as applied to claim 2 above, and further in view of **Vance, Jr. et al., U.S. Patent Number 7,043,264 (hereinafter Vance)**.

Regarding claim 8, the combination of Cohen, Aitken and Boyle teaches all the limitations of claim 2. The combination of Cohen, Aitken and Boyle fails to explicitly teach a method, wherein after sending the Push message to the Short Message Service Center, the PPG suspends the present transaction to wait for the processing result thereof from the Short Message Service Center and continues to process the next transaction.

In an analogous field of endeavor, Vance teaches a messaging server sends an SMS message through a Short Message Service Center (SMSC) to a client device, and if a response is not received, the messaging server lets the SMSC handle sending the message to the client and passively wait for a response (see col. 5, line 67 through col. 6, line 5). According to Vance, since SMS is a store and forward system the SMSC ensures the timely delivery of messages to the client, and the SMSC has the ability to detect that the client is not available and will deliver any waiting messages when the client becomes available (see col. 6, lines 6-13), thus one of ordinary skill in the art

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recognizes it would have been obvious for the PPG to suspend a current transaction and continue to process the next transaction till an acknowledgement is received from an SMSC to efficiently utilize network bandwidth resources.

It would therefore have been obvious to one of ordinary skill in the art at the time of the invention to modify Cohen, Aitken and Boyle with the teachings of Vance to include a method, wherein after sending the Push message to the Short Message Service Center, the PPG suspends the present transaction to wait for the processing result thereof from the Short Message Service Center and continues to process the next transaction, in order to efficiently utilize network bandwidth resources and to reliably deliver messages to a client in as close to real time as taught by Vance (see col. 6, lines 3-13 & 43-48).

Conclusion

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to ANTHONY S. ADDY whose telephone number is (571)272-7795. The examiner can normally be reached on Mon-Thur 8:00am-6:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Edouard can be reached on 571-272-7603. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR.

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Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Anthony S Addy/
Examiner, Art Unit 2617